Webinar 2: Regional Cooperation for Building a Resilient Seed System in the Philippines

October 7, 2020 | Manila, Philippines

REPORT

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BACKGROUND

Seeds are the foundation of agriculture. Access to quality seeds of crop varieties that meet the needs and are adapted to production systems of farmers is an essential feature of a sustainable food system. It ensures that farmers have timely access to affordable quality seeds and planting materials of the most suitable crop varieties. Farmers, especially small-scale farmers in developing countries, often lack or have limited access to such materials that are adapted to their production systems and growing conditions. This is due to lack of supply as well as inefficient distribution, inadequate quality assurance systems, and bottlenecks caused by a lack of enabling seed policies. Moreover, if seeds are of poor quality, there could be poor crop establishment, higher pest and disease incidence and, ultimately, low yield. Climate change has complicated the situation even further with increasing occurrence of extreme weather events such as floods, droughts, and typhoons. In addition, the incidence of pests and diseases is markedly on the rise.

Other countries in the region, facing similar effects of climate change, have pursued one key adaptation mechanism: change the breeding objectives of their research organizations to develop climate-smart varieties with tolerance for biotic and abiotic stresses. Some countries have come together to establish form a regional seed cooperation so that field trial data of public sector varieties conducted in one-member country can be shared with other member countries. Regional seed cooperation started with India and Bangladesh in 2013 to share varietal evaluation data to be used by other countries for release and commercialization of new varieties by public sector organizations, including CGIAR institutes. Subsequently, Nepal was included in October 2014. These three countries agreed to share field trial data generated during evaluation of varieties released in their respective countries. In June 2017, the agreement was extended to include Cambodia and Sri Lanka and scope was expanded to include other cereals, pulses, oilseeds, vegetables (non-hybrid), sugarcane, and fiber crops. The newest members of the group include Myanmar and Bhutan.

Several paddy varieties released in South Asian countries through this initiative have become hugely popular among farmers in the region. Farmers have benefitted because of the availability of these climate-resilient, high-yielding varieties. Recently, a bio-fortified potato variety, Yusi Maap developed by the International Potato Center (CIP), was released in India using trial data from Bhutan. It took nearly 15 years for Bhutan to release this variety, whereas the regional cooperation enabled India to release this variety within months.

By joining this regional seed cooperation, Filipino farmers can benefit from the faster release of new climate-smart varieties. This will also motivate private seed companies to set up their own

seed production facility in the country, a move in line with the recently announced National Seed Technology Park by the Department of Agriculture.

A six-member delegation from the Philippines visited Dhaka, Bangladesh and New Delhi, India to explore regional cooperation in the seed sector in January 2020. CIP organized the visit, enabling the delegates to confer with officials who advocate timely availability of newer seeds to strengthen food and nutrition security in the South and Southeast Asian regions and to get updates on seed varieties released through the regional cooperation. The visiting team consisted of representatives from the Department of Agriculture (DA) – Special Area for Agricultural Development (SAAD) Program and Bureau of Plant Industry (BPI), the Institute of Plant Breeding of University of Philippines Los Baños, Benguet State University, and the Department of Science and Technology – Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (DOST-PCAARRD). A workshop on regional seed cooperation was organized in Bangladesh under the chairmanship of Agriculture Minister Mohammad Adbur Razzaque and Secretary Mohammad Nasiruzzaman. While in India, the group met Dr. Ashwani Kumar, Joint Secretary of the Department of Agriculture, Cooperation and Farmers Welfare.

The objective of this webinar was to discuss the need, scope, benefits, and challenges of "Regional Seed Cooperation" in developing a climate-resilient seed system in the Philippines.
The discussion will specifically focus on

- the challenges confronting the seed sector in the face of climate change,
- the expected impacts of the Philippines joining the regional cooperation on the seed sector, and
- the potential challenges involved in joining the regional cooperation.

This webinar is the second of a series organized by CIP and the Climate Change, Agriculture and Food Security (CCAFS) in partnership with DOST-PCAARRD.

Program

The webinar was moderated by Dr. Sampriti Baruah, project coordinator for CIP Asia. Dr. Samarendu Mohanty, regional director for CIP Asia, provided the overview on regional cooperation on the seed system. The panelists included Dr. Lutful Hassan from Bangladesh Agricultural University (BAU), Dr. Bui Chi Buu from the Institute of Agricultural Science for Southern Vietnam, Ms. Elvira Morales from the Philippine Department of Agriculture, and Dr. Mary Ann Sayoc from East West Seed International from the Philippines. The synthesis was provided by Dr. Rodel Maghirang of the Institute of Plant Breeding, UPLB (see table).

Time	Activity	Person responsible
1:30-1:35 pm	Welcome and Introduction	Moderator *Dr. Sampriti Baruah* Project Coordinator for CIP Asia
1:35 – 1:45 pm	Presentation on the regional cooperation on seed system	*Dr. Samarendu Mohanty* Regional Director for CIP Asia
1:45-3:05 pm	Sharing from panelists	*Prof. Dr. Lutful Hassan* Vice Chancellor Bangladesh Agricultural University
		Dr. Bui Chi Buu Director General Institute of Agricultural Science for Southern Vietnam
		Ms. Elvira Morales Designate-Executive Assistant National Seed Industry Council (NSIC) Bureau of Plant Industry-Department of Agriculture
		Dr. Mary Ann Sayoc Group Lead Public Affairs East West Seed International
3:05-3:45 pm	Question and Answer	Moderator and panelists
3:45-3:55 pm	Synthesis	*Dr. Rodel Maghirang* Director Institute of Plant Breeding, University of Philippines Los Baños
3:55-4:00 pm	Closing	Moderator *Dr. Sampriti Baruah*

Please see Annex 1 for the concept note of the webinar. More detailed information can also be found on the CIP website for events, https://cipotato.org/event/webinar-regional-cooperation-building-resilient-seed-system-philippines/.

The list of speakers is presented below.

Name	Position	Organization	Country
Dr. Samarendu Mohanty	Asia Regional Director	International Potato Center (CIP)	Philippines
Dr. Lutful Hassan	Vice-Chancellor	Bangladesh Agricultural University (BAU)	Bangladesh
Dr. Bui Chi Buu	Director General	Institute of Agricultural Science for Southern Vietnam	Vietnam
Ms. Elvira D. Morales	Designated Executive Assistant of the National Seed Industry Council (NSIC) Secretariat Head of the Plant Variety Protection Office (PVPO)	Bureau of Plant Industry, Department of Agriculture	Philippines
Dr. Mary Ann P. Sayoc	Public Affairs Lead	East-West Seed International	Philippines
Dr. Rodel Maghirang	Director	Institute of Plant Breeding College of Agriculture and Food Science, University of the Philippines Los Baños	Philippines

For more information on the background of the speakers, please refer to Annex 2.

Participants

The webinar was attended by a total of 407 people from nine countries. This is out of the 562 people who registered for the event (see table for breakdown of participants per country). Majority of the participants came from the Philippines (93.37 %), followed by India with 3.9%. Please refer to Annex 3 for the directory of participants.

Country	Participants (no.)	Participation (%)
Bangladesh	4	0.98
Ethiopia	1	0.25
India	16	3.9
New Zealand	1	0.25
Peru	1	0.25
Philippines	380	93.37
United Kingdom	1	0.25
Vietnam	2	0.50
Zambia	1	0.25
Total	**407**	**100**

HIGHLIGHTS OF THE MEETING

Welcome and introduction

The webinar was formally opened by the moderator, Dr. Sampriti Baruah. She welcomed the participants and resource persons from the nine countries. This was followed by a brief introduction about regional cooperation building a resilient seed system in the Philippines, emphasizing on how Filipino farmers can benefit from the faster release of new climate-smart varieties and on attracting private seed companies to set up their seed production facility in the country. After discussing the objectives of the webinar, Dr. Baruah shared housekeeping rules; attendees were asked to write their questions in the chat box.

Presentation from panelists

1. Regional cooperation on seed system by Dr. Samarendu Mohanty

Dr. Mohanty provided the background on what is happening in Asia and how the regional cooperation on seed system can help the seed sector from a climate resiliency food system perspective. Highlights of the presentation are as follows:

- Asia, including the Philippines, is fast changing. Southeast and South Asia countries have strong economic growth, now a little bit off-track because of the pandemic. Rapid urbanization and a rising middle class contributed to the rapidly changing economic growth in the region. Asia will represent 2/3 of the middle class by 2050, as per World Bank projection. Asia will be a focal point in the world with its changing consumption patterns.
- In agriculture, changes with supply and demand included the rising rural outmigration for better opportunities where women and elder farmers are left to farm; fragmentation of landholdings; and increasing wage rate that lead to mechanization and virtual land consolidation for achieving economies of scale and bargaining power. In addition, the greater frequency of extreme weather events such as floods, droughts, and typhoons/cyclones further complicate the already complex situation.
- In terms of current preparedness of Asian agriculture, surveys showed that farmers identify abiotic and biotic stresses as the most important challenges facing them, but they are keen to diversify to include high-value cash crops if improved seeds and market linkages could be made available. However, the primary bottleneck of the current seed system is the need for timely availability of quality, new and improved, and appropriate varieties. Farmers are interested in having access to climate-resilient varieties (flood-, heat-, and drought-tolerant).
- The challenge in the seed system structure is varietal development and release of the public sector, which takes a long time, usually 10-15 years, before varieties reach the farmers. This is where the regional cooperation for seed sector can be critical. The

Regional Seed Cooperation aims to speed up the process of varietal release, seed multiplication, and varietal out-scaling for the benefit of farmers.

- These are the benefits of regional cooperation: (1) It can help in the exchange of varieties developed in one country so that these are made available in other countries in case they want them. This can save on time (10-15 years); and (2) Facilitates the movement of seeds across regions. A seed certified in a particular agro-ecological condition in one country can be accepted in the same category in other countries.
- There is regional cooperation in operation in these seven member countries: Bangladesh, Bhutan, Cambodia, India, Myanmar, Nepal, and Sri Lanka. The regional cooperation accelerates the seed release process using field trial data generated in a member country. The initial agreement covered rice and potato, but it was extended to include other crops such as other cereals, pulses, oil seeds, vegetables, sugarcane, and fiber crops.
- The regional cooperation started in 2013 with support of the International Rice Research Institute (IRRI). To date, farmers are already reaping benefits. An example is India where two varieties released from Bangladesh have now attained mega variety status. A recent case where CIP is instrumental is the release of a CIP potato bio-fortified variety made available to farmers and consumers in India last year from Bhutan by using 15-year trial data**.**
- The CIP goal is to expand the regional cooperation to include Philippines and Vietnam. The CGIAR centers can help facilitate the process and can develop protocols for a more effective implementation of the agreement with respect to their mandated crop. CIP will help in potato and sweetpotato. With the Philippines as a member, varieties developed and released (including evaluation data) here will be made available to other member countries in case they want them. In return, each member country agrees to share evaluation data and varieties for release and commercialization in the other countries.
- The focus varieties are those released by the CGIAR centers and the public sector.

2. Sharing from panelists

1. **Prof. Dr. Lutful Hassan: Vice Chancellor, Bangladesh Agricultural University**

Dr. Hassan talked about the importance of the regional cooperation to Bangladesh and the benefits derived from joining the cooperation. The following are highlights of his presentation.

- He gave a brief background on how Bangladesh joined the regional cooperation on seed sector through the facilitation of Dr. Umesh Singh, former regional coordinator of IRRI in India. In one of his trips to Bangladesh, Dr. Singh presented the regional cooperation on seed sector to the former Minister of Agriculture, who upon learning of the benefits of the cooperation, immediately grabbed the opportunity to join the facility.
- Dr. Hassan reiterated the importance of the regional cooperation to Bangladesh in consideration of these factors: the fast-changing consumption patterns of the Bangladeshis (i.e., less rice, more meat, and healthier diets); impact of climate change as

more frequent floods and cyclones hit the country, thereby reducing cropping and affecting farmers in the rural areas; problems with nutritional and food security; and decreasing crop land due to increasing population and industrialization, These issues are crucial to the regional cooperation on the seed sector.

- The regional cooperation was made successful by Dr. Singh in Bangladesh. It has helped reduce the crop breeding cycle. These are some examples of the benefits of the regional cooperation: four rice varieties released in India, using data from Bangladesh. Of these, two have been recorded as mega varieties in India. Scientists are happy because of the time saved in breeding. Bangladesh has benefited from the regional cooperation through the introduction of a potato variety, which directly goes to farmers.
- Joining the regional cooperation on seed sector is not obligatory. It is a choice made but the specific country, but it will help save time in varietal development. A variety developed along with its field trial data can be shared among countries in the same agro-ecological condition. Countries and farmers will be benefitted. Progress in achieving food security is crucial to meeting the Sustainable Development Goal by 2030.

2. Dr. Bui Chi Buu: Director General, Institute of Agricultural Science for Southern Vietnam

Dr. Bui Chi Buu shared information on the seed sector in Vietnam. His presentation included the following points.

- Government agencies and universities carry out seed research activities in Vietnam, including 18 research institutions and six universities. However, today, two private seed companies (Thai Binh Seed Company and Luc Thuy Group) are engaged in R&D. Most of the research institutes fall under the Ministry of Agriculture and Rural Development (MARD).

- Around 70-80% of the formal seed used, which includes hybrid rice seed, vegetable seed, and maize seed, is fully imported. Hybrid rice seed is imported mostly (70%) from China, while hybrid maize comes from Thailand and India. Vegetable seed is imported from Thailand, China, Japan, South Korea, and France. There is tough competition with big companies such as Monsanto, Syngenta, and others. The cost of seed production is very high.

- Vietnam is a UPOV member. ISTA-accredited member laboratories are not yet included. Considered key regulations are Seed Ordinance No.15 in 2004; Circular 207 in 2016; and the Crop Production Law including seed regulations promulgated in 2020.

- Rice-growing areas reached 7.47 million ha (100,000 ha decrease) and rice production was 43.44 million tons (602,000 tons reduced); average yield was 5.82 t/ha. Maize had

1.0 million ha (4.76 t/ha); vegetables, 0.966 million ha; and fruit orchards, 0.964 million ha.

- Demand for rice seed was 1-1.2 million tons annually; that for maize was 40,000 tons; and potato, 25,000 tons. Vietnam is highly dependent on imported seeds:70% of hybrid rice and 80% of hybrid maize. Importation of hybrid rice (15,000 tons per year (70% demand) from China) cost $45 million; the imported hybrid maize from big seeders of 10,000 tons (60%) cost $40 million; and vegetable seeds cost $100 million (80%) from Thailand.

- The key constraints to maintaining seed supply in Vietnam are as follows: (1) weak capacity on quality control, seed testing, and certification. For example, cassava, black pepper, and cashew nut are important crops but they are not included in the key list like rice and maize; (2) lack of information system that results in less efficient collaboration between seed business entrepreneurs and plant breeders; (3) the seed sector only focusing on rice and maize mainly with other crops (coffee, cassava, soybean) not included; and (4) limited R&D capacity due to limited funds for basic research and modern breeding (biotechnology).

- The registration system is being simplified. A new law made the procedures simpler, from registration for testing to DUS, VCU testing, trial production and mass production.

- Extension agencies promote the use of improved seeds. In the Mekong Delta, usage of certified rice seed was 2%, but now it increased to 70%.

- These are the main recommendations for the seed sector: (1) strengthen the linkages among R&D; seed producers, and extension workers; (2) strengthen seed quality control (preparing ISTA labs in Ho Chi Minh City and Ha Noi); (3) build an information system based on seed testing and seed certification; (4) diversify seed sector to cover key crops in Vietnam and not only rice and maize (cassava, rubber, and coffee are important); and (5) promote collaboration between the formal and informal seed supply systems in the country (e.g., public-private partnership lesson from Thailand).

- Sharing of experiences on the seed sector between the Philippines and Vietnam can help.

3. Ms. Elvira Morales: Designate-Executive Assistant, National Seed Industry Council (NSIC), Bureau of Plant Industry-Department of Agriculture

Ms. Morales talked about the Seed Industry Development Act or Republic Act no. 7308. The highlights of her presentation on the Act are as follows:

- The Act aiming to promote and develop the seed industry in the Philippines and create a national seed industry council and other purposes was enacted on March 27, 1992, but was issued in March 1994 after the finalization of the implementation rules and regulations.
- The seed council structure was explained. This includes the council, secretariat (council and technical), and groups working on (1) crop varietal improvement; (2) seed extension, promotion, and marketing; (3) seed certification and seed standard; and (4) seed production, processing, storage, and distribution.
- The Act is currently being reviewed for possible amendments to respond to the needs of the seed industry. These include policy issues on accessibility of quality seeds and development of the seed sector as a whole.
    - The current law is limited to the formal seed sector. In the proposed amendment, both formal and informal seed sectors will be recognized for integration and complementation.
    - The organizational structure of the Bureau of Plant Industry shall be enhanced to ensure of availability of quality seed to stakeholders from the national to the provincial level.
    - The Seed Industry Development Program shall be amended to define the operational mechanisms and institutional arrangements for the development of the seed sector. It was noted that the private sector of the seed industry develops R&D methodologies and seed technologies and apply them in crop improvement. There will be active cooperation and coordination with government agencies.
    - Seed control mechanisms shall be included for ease of doing business with interested persons.
    - Operational mechanism envisions addressing farmers' concerns, including R&D, recognition of contribution of farmers and indigenous groups to the conservation and development of genetic resources.
- In the Philippines, varietal release and development from the breeding institution to seed production and multiplication takes a total of 12 years. What if the Philippines or NASIC adopt the regional cooperation on seed sector, what will happen to the varietal release and development process? If a superior variety is introduced, no more breeding, that would be less 6 years. If the variety originates from a country with the same agroecological condition as that in the Philippines, there will be no multilocation testing and evaluation of NCT, which is another 4 years less. What remains is the approval for release of varieties by the National Seed Industry Council; this means only 1-2 years needed to release a variety with the regional cooperation on seed sector.
- Adoption of the regional cooperation on seed sector would give the following benefits:
    - The country has access to partner-countries' research data, methodology, and technology.
    - The nutrition and incomes of farmers in the Philippines would be improved.
    - Market demand for high-quality seeds would be met.
    - A formal seed system would be developed.

    - New varieties, particularly resilient/climate-smart varieties would be developed.
    - Resources (time and budget) for research and breeding activities would be reduced.
- Lastly, Ms. Morales pointed the way forward for the seed industry by giving these recommendations:
    - Strengthening of the Seed Industry Development Act by incorporating the proposed amendments and adopting such soon.
    - Proper implementation of the Seed Industry Development Program with budget allocation from the government.
    - Development and operationalization of the National Seed Technology Park that will house state-of-the-art seed processing centers, storage and seed laboratory, and demo/field trials.
    - International cooperation with neighboring countries through adoption of the regional cooperation on seed sector and harmonization of seed regulations with those in the East Asian countries.

4. Dr. Mary Ann Sayoc: Group Lead Public Affairs, East West Seed

Dr. Sayoc discussed the perspectives of the private sector on the regional cooperation on seed sector. The highlights of her presentations are as follows:

- The Philippine Seed Industry Association (PSA) is a 44-year-old organization established in 1976. Currently, it has 27 members: 11 multinational, 8 local companies, two government agencies, one academic, and five dealers. PSIA is one of the oldest seed associations in the Southeast and South Asia region. Its mission is to represent the industry that provides seeds and services of international quality standards. A major player in the agriculture sector, it sits in important government bodies related to seed and supports sound policy formulation of the Department of Agriculture. It also actively raises awareness on the importance of quality seeds through seed summits, field days, and the like. It promotes increased consumption of vegetables through partnerships with government agencies on the establishment of school and community vegetable gardens.
- The seed industry is the cornerstone of global food security. Food security depends on seed security. Seed is the basic and most vital input in agriculture. One of the major challenges that agriculture faces today is climate change. Seed production will be greatly affected with cost of production likely to increase due to scheduling of operations, land and water management, loss of crops due to extreme weather conditions, and postharvest seed management. One way to mitigate the impacts of climate change is the diversification of crops and varieties to give farmers more options.
- This can be achieved through a regional cooperation on seed sector as no one country has all the genetic resources it needs to adapt to climate change. The gains for the Philippines in joining the regional cooperation are:
    - Farmers will have access to the right information on trial data.

- Farmers will have fast access to and benefit from a wide array of high-quality, climate-resilient, modern crop varieties.
- Farmers are given wider choices.
- The time to market is shortened.
- There are cost savings in conducting evaluation trials.
- Multinational companies can fast-track the market release of their mega varieties tested across South and Southeast Asia.
- Local companies will have export opportunities for their seeds for use in similar environments in other countries.

- These are good propositions; however, some potential challenges are also faced.
  - Clarity on seed regulatory landscape in each country - IPR/PVP, including safeguards against infringements and sanctions for infringers.
  - Harmonization of variety registration/certification standards and processes.
  - Quarantine measures/import restrictions.
  - Proliferation of low-quality, adulterated seeds.
  - Integrity of trial data.
  - Differences in agro-ecological zones across the region; parameters should be included to define the zones.
- The recommendations out forward are as follows:
  - Define the scope of the regional cooperation - what crops, what kinds of seeds (breeders, foundation, commercial, etc.), institutions involved, private sector participation.
  - Harmonize protocols on seed movement, especially phytosanitary requirements, SMTA/MTA.
  - Define the platform and guidelines for data sharing.
  - Conduct a pilot test/case study to develop more clarity among country partners.
  - Conduct trust-building activities among partners.
  - Conduct disease and pest profiling of target environments to ensure that introduced foreign varieties are tolerant; come up with suitable crop protection technologies.
  - Establish NSTP as the international seed port through Clark airport for priority or express quarantine clearance with e-phyto system for rapid international seed movement.

Open Forum

The question and answer session was handled by Dr. Samarendu Mohanty.

Question by	Inquiry/concern	Response
Dr. Sumit Manjkhola	To Dr. Mohanty: Please tell us which bio fortified potato variety of CIP was directly notified in India.	Samarendu Mohanty: Yusi Maap is the name of the CIP line. It is a bio-fortified variety, high in zinc and iron that was released in India using field trial data from Bhutan. Accelerated the seed multiplication process by eliminating the 10-year field trial before the variety becomes available to farmers.
Dr. Debashish Chanda	To all panelists: How can seed and varietal data exchange be made available to CG centers and the private sectors of these seven countries so they can know what varieties to import?	Dr. Lutful Hassan: For a variety released in India, of any crop, for example, from Nepal: scientists from Nepal can communicate with those in India about data and information so it can be released to them. Communicate with researchers to get the data (from India to Bangladesh).
Joel Norman Panganiban	To Ms. Morales and all panelists: We are currently in the onset of climate change, and as mentioned in the presentations, breeding and varietal improvement takes 10-15 years. Are we prepared for the emerging pests of various crops?	Ms. Elvira Morales: We have the crop pest division, but maybe the breeders in the panel can answer this. Dr. Lutful Hassan: For a breeder, what is the goal in breeding? They can foresee the upcoming pest and diseases, and this can be framed that way. For example, rice blast, breeders have to design the breeding program and their mechanism of breeding, so the variety has tolerance for resistance to this disease. That is the clear role of a breeder. It is a combination of breeding and plant protection.
Jimboy Eugenio	To all panelists: How do we ensure the integrity of seed variety if our governments are linked to big capitalists in the seed industry?	Dr. Mary-ann Sayoc: What does the word 'link' mean? Is the government linked to this capitalist seed company, as part owner of the seed company? I do not exactly understand the question. But as I said, a strong public-private partnership can happen if both sectors, government and seed company, have the interest of farmers in their mind. There is no conflict because the mission of the seed industry is to uplift farmers' lives by

		giving access to quality seed and better knowledge in farming. Dr. Samarendu Mohanty: The private sector has a key role in the seed sector. The government can develop and release varieties, but the distribution, multiplication, and scaling up can be done by the private sector. They have an important role to play in strengthening the seed system.
Victoria Demonteverde	To Ms. Elvira Morales: How can farmers avail of NSIC-recommended varieties?	Ms. Elvira Morales: We have a seed network that is responsible for the multiplication and distribution of quality seeds. We have the information on who are the breeders of registered seeds. We have the accredited seed growers to produce seeds for distribution.
Sugandha Munshi	To all panelists: Availability of quality seeds for farmers remains a huge challenge! What do the top three key intervention panelists think to help resolve this grassroots challenge?	Dr. Lutful Hassan: Quality of seeds is really important. You can see the recommendations made by Dr. Sayoc. A good seed can change the lives of millions. If you want to go for quality seeds, the first selection is that the variety must reflect the need of the country – be it nutrition or food security. Second, the challenges of the seed sector that Dr. Sayoc mentioned - IPR, PVP, quarantine measures, integrity of trial data, agro-ecological conditions, all these must be clearly addressed. Lastly, the purity and quality of the seeds. These three are the most important factors that can be addressed for farmers to benefit. Dr. Mary-ann Sayoc: Another way for farmers to access seeds is private seed companies conducting with government techno demos to show varieties and technologies. Seed companies have value packs with small amounts of seeds for trial which cost a dollar. Farmers can try it; that would improve accessibility. It is not only enough to have good-quality seed but also knowledge and application of better farming practices to optimize the genetic potential of varieties.
Anantharaman Pillai	To all panelists: The formal seed production	Dr. Lutful Hassan: As he has already pointed out, the formal seed

	system is somewhat successful for seeded crops, how about in vegetative propagated crops like tuber crops? Storage, bulkiness, multiplication and transportation, large quantity go as seed materials are major constraints. What are the modalities of seed management in such crops? How can the general seed certification standards be managed in vegetative propagated crops? How could public and private seed sectors be integrated best? Likewise, how can we achieve formal and informal seed system integration and linkages in the seed supply system?	system is there. It covers all these steps. Everybody should be very careful so that quality seeds go to farmers and to the fields. Systems are already in place.
John de Leon	To all panelists: Will there also be a potential challenge in the context of trade liberalization like import/export (variety developed by participating country is suddenly exported to it)?	Dr. Samarendu Mohanty: He is referring to the regional cooperation because of the free trade. If the variety developed from a country is exported to the same country by the other country. It is possible if that country has a competitive advantage in producing seed. An example is if the variety is developed in the Philippines but Vietnam has a competitive advantage in producing the seed, you would see that exported to the Philippines by Vietnam, although the variety was developed in the Philippines. Dr. Lutful Hassan: Everything should be done on a legal framework. CG centers can play the role of catalysts.
Norvie Manigbas	To all panelists: Will the requirements of the country partners be similar in terms of time duration of variety release? For Philippines, it will only require 1-2 years. Is it similar to other countries?	Dr. Buu Chi Bui: Yes, we have the same time frame. It takes at least 6-8 years to have a new variety released. It takes 2-3 years for testing before the release. Vietnam has a very bureaucratic system before, but today, there is the new seed act, which made things better.
Myer Mula	To all panelists: Each country has its own	Dr. Lutful Hassan: This is very important. If we want to have a

	policies and laws. With this program (regional cooperation), can we have a common law to all countries concerned to ease the movement of seeds?	common law on seed movement, this agreement is so important that it has to be signed by the countries. CG center can take the lead and explain the importance of the agreement and open discussions in all levels as agreed upon by the respective secretaries of agriculture. There should be government-to-government agreement. This is what Dr. Umesh Singh has done. We can facilitate this because this is for the benefit of the country, the farmers, the poor people. Dr. Mary-ann Sayoc: I have exactly the same question. I do not know if regional cooperation has precedence over an existing national law. But I think on agreement, there is already a lot of harmonization of laws, such as phytosanitary, PVP. This is one good step – regional agreement – to include in the harmonization. Dr. Buu Chi Bui: Vietnam has signed the MTA, and it is very open now. It will be easy for Vietnam. Dr. Samarendu Mohanty: I thought initially that it would be very difficult, what we are talking about regional cooperation, not streamlining the law, but once there is cooperation, you have data sharing, capacity building, training. The next step could be the harmonization of the law not only among countries but in the entire Southeast and South Asian region. The initiative started by Dr. Umesh Singh when he was in IRRI and then CIP took this up to add more countries and crops. If Vietnam and Philippines become members, what we can do is to look at low hanging fruits, then harvest the benefits for farmers. Once we see the benefits for farmers, then we can look up streamlining, harmonizing the law in the region so there will be no problem in the movement of the seeds.

		Ms. Elvira Morales: The East Asian countries will have the initiative to organize the ASEAN Seed Council to harmonize all the regulations in East Asia. From Umesh Singh from the chat box: Yes, it can be one of the issues for the next secretary-level meeting. There is a provision in the seed agreement for the harmonization of the seed system.
Yolanda Reyes	To all panelists: Can we ask support from government to enable farmers to avail of those good-quality seeds because most of those seeds have a high price and farmers cannot afford them?	Dr. Lutful Hassan: In Bangladesh, the Bangladesh Agricultural Development Cooperation (BADC) is supplying seeds to farmers at discounted rates, but the private sector is also involved. The major players are the government, private sector, and farmers all supplying the seeds. The government cannot subsidize all the seeds for farmers. Twenty-five percent have been distributed by BADC. The private sector is taking some share; price is a bit high, but farmers are fine with quality seeds that give a good harvest. Inbred lines are always available that farmers can keep and use for the next season. Dr. Mary-ann Sayoc: Seed cost is less than 10% of the production cost, but it gives farmers the income. There is a saying that "you can only fool a farmer once". If the farmer is not satisfied with the harvest, you will not get a repeat order so seed companies have to offer the best seed quality. Dr. Lutful Hassan: In Bangladesh, there is the Department of Agricultural Extension (DAE) that provides training to farmers on producing quality seeds, which is really important to farmers.
Dennis Gilbero	To Ms. Elvira Morales: Would it be possible that in the amending RA7308, the forest tree seed will also be included for certification?	Ms. Elvira Morales: RA7308 is only for food. The law covers only agricultural food crops under the Department of Agriculture.

Angelie Rose Lumba	To all panelists: Access to certified seeds of high-yielding and resistant varieties is still unreachable by small and poor farmers. But it is still an advantage since the ones holding traditional and native seeded varieties are the small farmers, which largely contributes to preventing genetic erosion. How do we balance this situation?	Dr. Lutful Hassan: Farmers keep balance. Some keep native varieties, others high-yielding ones. There are some who keep both. It is their choice. When farmers get a good price and good yield, they move to new varieties. This is quite normal. So that's why we have genebanks to keep all the genotypes, and if we need genetic material, we can have it. Genetic erosion should not be there. Dr. Samarendu Mohanty: One of the criticisms of the green revolution is the genetic erosion of rice, wheat, and other crops. In South and South East Asia, a lot of the varieties grown are IRRI-bred and it has replaced the traditional and local varieties with these mega varieties grown over millions of hectares.
Jimboy Eugenio	To Dr. Mary-ann Sayoc: East West is my preferred seed brand for my vegetable because of its adaptability and quality of crops. Is it possible that East West could help establish a model school garden in public schools?	Dr. Mary-ann Sayoc: Yes. Through East West Seed Foundation, we help set up schools and community vegetable gardens even in public schools. We have already established community gardens in 350 public schools, mainly in Luzon. We can also do it in Mindanao. Please contact me.
Reinhold Jek Abing	To all panelists: Sustaining the supply of seeds at the grassroots level (local farmers) remains a challenge. In fact, the local agriculture office constantly hands out seed to local farmers. Any suggestions from the panelists from other countries on their best practices on this matter?	Dr. Lutful Hassan: The government management is always there. For example, if there is a need to address 10 million farmers in southern Bangladesh, we develop a program to train the agricultural extension officers and farmers so that we can deliver the seed material to grassroots farmers. Farmers know how to contact government agencies to get the seed. The private sector also plays a vital role. We have set up thousands of demonstration plots in villages in 20 districts in southern Bangladesh, so farmers are very aware of the development and performance of varieties, can gain knowledge and can communicate with government agencies on their need for seeds. Dr. Buu Chi Bui:

		Quality seed is standard, so government puts attention to it. The problem is in the private sector, seed cost is very high. Seed supply depends on imported seed. Not a good situation now. We worry about the competition between domestic and foreign seed companies.
Norvie Manigbas	To all panelists: Can a country partner decline the introduction of another country partner's variety despite this regional cooperation thing, safeguarding the interests of its farmers?	Dr. Lutful Hassan: National laws should be addressed in the agreements, and it is up to the country to accept or not. From Umesh Singh in the chatbox: The seed agreement has taken into consideration national laws and the seed system in participating countries. Dr. Samarendu Mohanty: In the regional cooperation, it is not mandatory to forcefully release varieties against their national seed law. India is very active in releasing variety from Nepal and Bangladesh, but others like Cambodia and Myanmar do not so it is up to the country if they would utilize the data to release varieties not in their own country. It is not mandatory or obligatory to use the information on the variety. It is to take advantage of the data to release a variety for the benefit of farmers. It is not an agreement, but a cooperation. Dr. Lutful Hassan: To see the benefits of cooperation, I suggest organizing a workshop to be attended by renowned scientists to discuss varietal performances of varieties, for the benefit of the farmers. Bangladesh has small and medium seed companies that are all under the government framework. Everything must be legalized.

Synthesis

Dr. Rodel Maghirang provided valuable insights on the synthesis of the presentations and discussions in the webinar.

He started by highlighting some points on the "Regional Cooperation for Building a Resilient Seed System in the Philippines". The target output of the webinar is to recommend that the Philippines join the regional seed cooperation. The Regional Seed Cooperation aims to speed up the process of varietal release, seed multiplication and varietal out scaling which can save on time (10-15 years) and money ($ millions). The country included in the regional cooperation are Bangladesh, Bhutan, Cambodia, India, Myanmar, Nepal, and Sri Lanka. Rice and potato are the crops, but it extends to other crops such as, other cereals, pulses, oil seeds, vegetables, sugarcane, and fiber crops.

He emphasized that if the Philippines decides to become a member of the regional cooperation, the country would reap these benefits: access to varieties developed and released (including evaluation data) in one member country will be available to other member countries, particularly potato and sweetpotato. We can test initially and adapt in our country. In return, other member countries can access the evaluation data and varieties released by the Philippines. It will be a win-win situation. It can save time and money.

The highlights of the panelist presentations are as follows:

- Prof. Dr. Lutful Hassan, Vice Chancellor, Bangladesh Agricultural University. He mentioned the fast-changing climate affecting Bangladesh, the need for food security and nutritional security, the shrinking production area, so they need higher yielding and earlier maturing varieties. Bangladesh benefitted from the Regional Seed Cooperation, particularly in potato. They have very good yields of potato and sweetpotato.
- Dr. Bui Chi Buu, Director General, Institute of Agricultural Science for Southern Vietnam. Government agencies and universities carry out seed research activities. Seed usage from the formal seed sector is 70-80% but highly dependent on imported seeds in rice, maize, and vegetables. In another perspective, I think this is already seed without borders as many of their seeds come from other countries. There is weak capacity in quality control, seed testing, and certification in most crops, except rice and maize. The target is to diversify the seed sector to include other high-value crops and promote collaboration between formal and informal seed systems.
- Ms. Elvira D. Morales, Designate-executive Assistant, National Seed Industry Council, Philippines. She discussed the Seed Industry Development Act of the Philippines, which is the backbone of the seed industry in terms of the regulation. The amendment to the Seed Industry Development Program (SIDP) is being done; it includes section and programs on variety development, release, and certification and the integration and complementation of the formal and informal seed sector (including traditional varieties to be protected). If the Philippines becomes a member, we will have access to partner-countries' research data, methodology, and technology. There will also be access to

new, varied, high-quality, and resilient/climate-smart varieties. There will be timely availability of a wide range of varieties, not waiting for the variety development process of 15 years. If regulations will be adjusted without the trials, varieties from other countries can be released to farmers in 1-2 years.

- Dr. Mary Ann P. Sayoc, President, Philippine Seed Industry Association, Public Affairs Lead, East West Seed. She mentioned a lot of benefits from this regional cooperation, including the availability of genetic resources that will be useful for farmers. It will offer a wider choice for farmers. The cooperation will enable multinational companies to fast-track the market release of varieties tested in member countries, and to have export opportunities for their seeds in member countries with similar agro-ecological conditions. She mentioned that it is a good proposition but with challenges such as the issue on intellectual property rights (IPR) and plant variety protection (PVP) in the case of the Philippines; harmonization/ equivalence/ recognition of variety registration/certification standards, seed certification which can take some time; and quarantine measures/import restrictions to avoid the spread of pest and diseases. These are important issues but solvable.

The concerns raised in the discussions were:

- Facilitation on the availability of varietal information from which countries so they can scan the information and select.
- Outside the cooperation but relevant is the solving of future problems (i.e., pest and diseases) which breeders can address through breeding objectives/goals in 5-10 years.
- Ensuring integrity of the variety which is a little bit political.
- Availability and sustainability of the supply of quality seeds to the grassroots. The suggestions to address this are to conduct techno demonstrations, provide seed packets, and integrate the formal and informal seed systems.
- There are many opportunities and problems, but we can focus first on low-hanging fruits, so we get the gains and solve the problems to enable us to move forward.
- Balancing genetic erosion and genetic diversity is a concern in varietal development, but we have the genetic resources laboratory/germplasm conservation to tackle this.

On moving forward, here are some suggestions:

- Expand the Siam Reap Agreement to include the Philippines and Vietnam.
- The Philippines should settle the issue on PVP/IPR.
- Harmonize/recognize member country seed certification systems: re: seed laws. This will be a government-to-government negotiation.
- Harmonize protocols on seed movement such as SMTA/MTA. We can facilitate this as we have been doing this with CGIAR.
- Define platform and guidelines for data sharing. This is a minor issue.

He further suggested the following:

- Pilot testing so we can tackle and see the problems. Make the NSTP as the hub.
- Action plan and timelines are needed. A coordinator needs to be assigned.

- CGIAR centers can facilitate the process and develop protocols for effective implementation of the agreement.

Please see Annex 5 for the powerpoint presentation of the synthesis.

Closing

To close the webinar, Dr. Baruah expressed appreciation to all the panelists, resource persons, participants, and co-organizers. She requested the participants to answer the evaluation and request for a certificate. She also mentioned that if participants are interested in a third webinar, they should suggest topics for future discussion.

The full webinar can be viewed in this link.

Youtube: https://youtu.be/UhikIliYmMc

CIP site event with the video:
https://cipotato.org/event/webinar-regional-cooperation-building-resilient-seed-system-philippines/

EVALUATION

The webinar was rated very successful by the participants. The overall rating of 316 respondents was all passing with grades of excellent (67.08), very good (31.03), and good (1.89). One hundred percent (316 respondents) said that their expectations of the webinar were met. Similarly, 100 percent of the respondents said that the subject matter was effectively presented, and that their participation in the webinar helped them gain new knowledge applicable to their work.

What participants liked the most are the new knowledge and insights learned on seed system and regional cooperation, especially its sharing from different countries and private sectors and government. They also mentioned that they liked the presentations of the excellent panelists, and the synthesis provided after each talk and the overall synthesis of the webinar. Most respondents answered none when asked what they least liked in the webinar, but some mentioned the lack of slide presentation of some speakers, the language barrier, time allotment, and poor audio. The participants also provided useful comments for the improvement of the next webinars and suggested topics that organizers can consider. They also gave encouraging comments for an excellent and well-done webinar.

The summary of the evaluation results is shown below:

Question		Percentage	Number of respondents
1. Did the webinar meet your expectations?	**Yes**	100	316
	No	0	0
2.Was the webinar structured well?	**Yes**	99.7	315
	No	0.3	1
3. Was the subject matter effectively presented?	**Yes**	100	314
	No	0	
4. As a result of this webinar, did you gain new knowledge applicable to your work?	**Yes**	100	315
	No	0	
5. What did you like most about the webinar?	1. New knowledge and insights learned from the webinar, especially the sharing from different countries. 2. New topics learned on crops – production, postharvest, food security/systems, adoption of new varieties, etc. 3. Seed system as a topic including production, marketing, integration, etc. 4. Regional cooperation among countries on seed system/seed without international borders. 5. Perspectives of the government and private sector on Seeds Without Borders 6. All the presentations, speakers and panelists were excellent. The lectures of Dr. Mohanty and Dr. Sayoc were very good and informative. (19). 7. Synthesis provided was very good – Dr. Sampriti's synthesis after the presentation and the synthesis of Dr. Maghirang explained everything well. I like the host for speaking in the webinar. (3) 8. All topics were very informative, helpful, relevant and valuable.		283

6. What did you like least about the webinar?	1. None/nothing 2. Topics not discussed like potato, establishing seed technology park, hard data/information for each crop/country was lacking on improvement of nutritional security, laws, and improvement of the seed sector to have impact on the farmers, and quality seed distribution for breeding purposes for the benefit of farmers affected by biotic and abiotic stresses. 3. Policy and decision makers should also be invited to have their insights. 4. No presentations/slides of speakers 5. Time allotment/time duration 6. Poor audio quality of some speakers 7. Language differences, some words not understood 8. Slow internet connection 9. Lack of polls, short quizzes or surveys from participants		254
7. Overall, how would you rate the webinar?	Excellent	67.08	214
	Very good	31.03	99
	Good	1.89	6
8. Suggest a future topic or way we could improve our webinars.	**Suggested Topics (selected)** 1. Potato seed system development/initiatives of Asian countries in potato varietal development 2. A discussion about community-based seed system in the country 3. Focus on regional cooperation for a climate-resilient seed system (with a goal of crafting policies, rules/regulations, guidelines etc.) 4. Climate-resilient agriculture/status of climate change in ASEAN and the readiness of their agriculture sector 5. National Seed Technology Park and its role in developing a climate-resilient seed system in the Philippines 6. Seed certification/seed production of indigenous plants/seed technology 7. Strengthening linkages and partnerships among regional countries toward sustainable agriculture		199

	8. How the seed industry preparing for the next 30 years 9. Financial inclusion in agriculture 10. Agricultural systems and concepts during pandemic	
	Ways to improve the next webinar 1. Clearer audio, use head set with mic. 2. Topics should be given using powerpoint presentation 3. More time allotted 4. Increase discussions with attendees, not only in the chat box 5. Extend the number of hours for the webinar	
	Encouraging comments 1. Perfect. Please continue your good work. 2. Excellent, keep it up. 3. Keep continuing. 4. Well done. 5. More informative webinar series	

Some selected quotes of respondents on the webinar:

"I really like that they bring a lot of speakers to share their knowledge and also it brings a lot of information to us. I hope you'll host again another webinar like this! Thank you!"

"I like how the panelists shared their ideas in addressing a concern/question. It is very helpful because more aspects or sides of the topic being discussed are acknowledged, this helps the panelists and participants see the topic through a wider lens. "

"I like the most the panel discussion and presentation by speakers. Having a regional cooperation for building a resilient seed system in the Philippines is a strategic move to expand the genetic resources of various agricultural crops in the country."

"This should be a whole-day event. Hoping for more webinars like this!"

Please see the complete evaluation results of Webinar 2 in Annex 6.

ANNEXES:

1 – Concept note and program of the webinar.

SEED SYSTEM WEBINAR 2
Regional Cooperation for Building a Resilient Seed System in the Philippines

October 7, 2020: 1.30pm – 4.00pm Manila Time

BACKGROUND

Seeds are the foundation for agriculture. Access to quality seeds of crop varieties that are adapted to the needs and production systems of farmers is an essential feature of the sustainable food system. It ensures that farmers have timely access to affordable quality seeds and planting materials of the most suitable crop varieties. Farmers, especially small-scale farmers in developing countries, often lack or have limited access to affordable quality seeds and planting materials of crop varieties that are adapted to their production systems and growing conditions. This is due to both a lack of supply as well as inefficient distribution, inadequate quality assurance systems, and bottlenecks caused by a lack of enabling seed policies. Moreover, if seeds are of poor quality, there could be poor crop establishment, higher incidents of pests and diseases and ultimately, low yields. Climate change has complicated the situation even further with increasing occurrence of extreme weather events such as flood, drought, and typhoons. In addition, the incidence of pests and diseases is markedly on the rise.

Other countries in the region are also faced with similar effects of climate change. Countries have pursued one key adaptation mechanism by changing the breeding objective of their research organizations to develop climate smart varieties with tolerance to biotic and abiotic stresses. Some countries have come together to form a regional seed cooperation so that field trial data of public sector varieties conducted in one-member country can be shared with other member countries for faster release in other member countries. The regional seed cooperation started with India and Bangladesh in 2013 to share information on varietal evaluation data for use by other country for release and commercialization of the new varieties by public sector organizations including CGIAR institutes. Subsequently, it was extended to include Nepal in October 2014. These three countries agreed to share field trials data generated during evaluation of varieties released in respective countries for use in other two countries. In June 2017, the agreement was extended to include Cambodia and Sri Lanka and the

scope was expanded to include other cereals, pulses, oilseeds, vegetables (non-hybrid), sugarcane and fiber crops. The newest members of the group include Myanmar and Bhutan.

Several paddy varieties released in South Asian countries through this initiative have become hugely popular among farmers in the region. Farmers have benefitted because of availability of these climate resilient high yielding varieties through this regional cooperation. Recently, a bio-fortified potato variety - Yusi Maap developed by CIP was released in India using the trial data from Bhutan. It took nearly 15 years for Bhutan to release this variety whereas the regional cooperation enabled India to release this variety in India within months.

By joining this regional seed cooperation, the Filipino farmers can benefit from faster release of new climate smart varieties. This will also attract private seed companies to set up their seed production facility in the country which is in line with recently announced National Seed Technology Park by the Department of Agriculture.

A six-member delegation from the Philippines visited Dhaka, Bangladesh and New Delhi, India to explore the regional cooperation in seed sector in January 2020. The International Potato Center (CIP) organized the visit, which aimed to meet the officials who have been advocating the timely availability of newer seeds to strengthen food and nutrition security in the South and Southeast Asian Regions, and to get an update on the seed varieties released through the regional cooperation. The delegate consisted of representatives from the Department of Agriculture (DA) – Special Area for Agricultural Development (SAAD) Program and Bureau of Plant Industry (BPI), the Institute of Plant Breeding of University of Philippines Los Baños, Benguet State University, and Department of Science and Technology – Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development. In Bangladesh, a workshop on regional seed cooperation was organized under the chairmanship of the Agriculture Minister Mohammad Adbur Razzaque and Secretary Mohammad Nasiruzzaman. While in India, the group met Joint Secretary of the Department of Agriculture, Cooperation and Farmers Welfare Dr. Ashwani Kumar.

The objective of this webinar is to discuss the need, scope, benefits, and challenges of "Regional Seed Cooperation" in developing a climate resilient seed system in the Philippines.

The discussion will specifically focus on:

- the challenges faced by the seed sector in the face of climate change.
- The expected impacts of Philippine joining the regional cooperation in seed sector.
- The potential challenges for joining the regional cooperation.

PROGRAMME

Time	**Activity**	**Person Responsible**
1:30-1:35 pm	Welcome and Introductions	Moderator Dr. Sampriti Baruah
1:35 – 1:45 pm	Presentation on the regional cooperation on seed system (10 mins)	Dr. Samarendu Mohanty
1:45-3:05 pm	Sharing from panelist (20 minutes each)	Prof. Dr. Lutful Hassan Vice Chancellor Bangladesh Agricultural University
		Dr. Bui Chi Buu Director General Institute of Agricultural Science for Southern Vietnam
		Ms. Elvira Morales Designate-Executive Assistant

		National Seed Industry Council (NSIC) Bureau of Plant Industry-Department of Agriculture
		Dr. Mary Ann Sayoc Group Lead Public Affairs East West Seed
3:05-3:45 pm	Question and Answer (40 minutes)	Moderator and Panelist
3:45-3:55 pm	Synthesis (10 mins)	Dr. Rodel Maghirang Director Institute of Plant Breeding, University of Philippines Los Baños
3:55-4:00 pm	Closing	Moderator Dr. Sampriti Baruah

TARGET OUTPUT

Recommendation on the Philippines joining the regional seed cooperation.

REGISTRATION LINK

You can register now at:

https://us02web.zoom.us/webinar/register/WN_2EHmq1T-SAKfrI14fYc2PA

2 - Information of the speakers

2.1. Dr. Samarendu Mohanty

Samarendu Mohanty is the Asia regional director for the International Potato Center (CIP). Sam provides programmatic oversight for research and development portfolio; provides leadership in regional operational systems; and plays representational role for CIP in the region, with a focus on India, Bangladesh, Vietnam, Indonesia and the Philippines. Sam, an American National, holds a Ph.D. in Agricultural Economics from University of Nebraska-Lincoln, a M.S. in Agricultural Economics from University of Nebraska-Lincoln and a B.Sc. from University of Agricultural Sciences in Bangalore, India. He brings over 20 years of experience with skills in Research Management, Fund Raising, Commodity Markets, Research Funding, Asset Management, Policy and Trade Analysis. Sam joins CIP after working as Principal Scientist at the International Rice Research Institute – IRRI in Philippines and previously as Head and Senior Economist for the Social Sciences Division in IRRI since 2008. Previously, he also worked as Associate Professor and Associate Director for Cotton Economics Research Institute at Texas Tech University and scientist at Food and Agricultural Policy Research Institute at Iowa State University.

2.2. Dr. Lutful Hasaan

Professor Dr. Lutful Hassan is the Vice-Chancellor of Bangladesh Agricultural University (BAU). Prior to joining the present position, he was one of the most senior Professors of the same University in the Department of the Genetics & Plant Breeding under faculty of Agriculture.

Born in January 28,1956, Professor Dr. Lutful Hassan comes of the Wazipur under the district of Barisal. He is the son of renowned social worker late Abul Hassan and mother Fatema Begum.
He passed B.Sc. Agriculture (Hons) under the Faculty of the Agriculture, BAU in 1976 acquiring 1st class fourth. He did MSc (Agriculture) in Genetics & Plant Breeding from BAU in 1977 acquiring 1st class First. He did his Ph. D from the University of Wales. Aberystwyth, U.K. in 1989. He also completed Post-Doctoral Fellow in University of Wales. Aberystwyth, United Kingdom; University of Miyazaki, Japan; University of Gottingen, Germany; Kansas State University,USA and University of Kagoshima,Japan in 1995 to 2011.

Professor Dr. Lutful Hassan joined BAU as a Lecturer in 1981 and was promoted to the rank of Professor in 1995.

Dr. Lutful Hassan possesses an eminent, well known and respected background of career with a plethora of research exposure and quality national and international publications. He worked as an editor of many national & international Journals. He has 166 number of publications in journals and proceedings. He participated in good number of National and International conferences, workshops, seminar and symposiums held on the subjects related to the field of specialization, presented technical papers and chaired several technical sessions. During 38 years of his teaching, research and color eventful career at BAU, Professor Hassan had a vast administrative exposure by holding key academic and administrative positions namely, Coordinator, Committee for advanced Studies & Research; Member, pay and service commission, Bangladesh 2014; Convener, Provost Council; Director, BAU Research System (BAURES); Head, Department of the Genetics & Plant Breeding; Provost-Sheikh Fazilatunnesa Mujib Hall; He was also President of Bangladesh Agricultural University Teacher's Association; President of Gonotantric Shikkhok Forum; President of Crop Science Society of Bangladesh, Persident of JSPS Alumni Association, President of Bangladesh Association for Biotechnology & Genetic Engineering and also Member of Bangladesh Chhatra League Central Committee, Joint Secretary of Bangladesh Chhatra League BAU Unit, Vice President of Shamsul Haque Hall Student Sangsad , Vice President of Agriculture Faculty Student Organization. He served as Agriculture Specialist (Consultant) in IRRI.

2.3 Dr. Bui Chi Buu

Dr. Bui Chi Buu is currently the Director General of the Institute of Agricultural Science for Southern Vietnam. Prior to this appointment, he has successfully completed his Administrative responsibilities as Director General of Cuu Long Delta Rice Research Institute.
Dr. Bui Chi Buu has received his PhD in Plant Breeding from Vietnam Agricultural Sciences Institute during the period of 1982-1989. He has authored more than 240 research articles and 13 books. He has been honored with Viet Talent Award for basic research outputs by GOV of Vietnam (2010).

His research interest is rice breeding with the emphasis on grain quality improvement, salt tolerance, and biotic stress resistance; germplasm conservation with the emphasis on wild rice species; molecular breeding on some biotic stresses such as blast, bacterial blight, brown planthopper and salt tolerance; and quantitative genetics: genetic structure analysis on sink and source relationship through triple test cross, genetic advance of selected multiple traits, selection index, and GxE interaction.

2.4 Ms. Elvira Morales

As the Designated Executive Assistant of the National Seed Industry Council (NSIC) and Secretariat Head of the Plant Variety Protection Office (PVPO), she has been involved in the day-to-day operational activities of the office.

NSIC is created by virtue of Republic Act 7308 otherwise known as the Seed Industry Development Act and in-charge in the registration of promising varieties, through an in-place variety performance trial termed as the National Cooperative Testing (NCT) and formulate policies for the effective implementation of this Act. Another national law that has been carried out is the Republic Act 9168 or the Plant Variety Protection Act. A policy that protects and secures the exclusive rights of breeders with respect to their new plant variety.

Part of her job is to oversee the smooth implementation of these two national laws. I Initiated the review and proposed amendment of the Seed Act to incorporate and address current challenges that the Seed Industry is facing on. She also led in the evaluation and examination of varieties applied for variety registration and protection and represents the Executive Director and PVP Registrar in the official activities and functions of the Office.

2.5 Dr. Mary Ann Sayoc

Dr. Mary Ann P. Sayoc is the Public Affairs Lead of East-West Seed International. She has 20 years of professional experience in the seed industry. She was former General Manager of East-West Seed Philippines, a Dutch company engaged in research, development, production, and distribution of vegetable seeds. East-West Seed is market leader for tropical vegetable seeds in Asia and developing markets in Africa and Latin-America.

Dr. Sayoc is active in the local and international seed sector. She is currently the President of the Philippine Seed Industry Association. She is past president of the Asia & Pacific Seed Alliance (APSA). She has been re-elected to the Board of the International Seed Federation (ISF) and is a member of the Breeders Committee, Sustainable Agriculture Committee and Vegetable and Ornamental Board of ISF. She was a member of the Executive Board of the Global Crop Diversity Trust for six years, an international organization working to safeguard crop diversity, forever. Dr. Sayoc is a member of the National Seed Industry Council and the Plant Variety Protection Board.

Prior to her stint in the private sector, Mary Ann had a long career in government. She held key positions in the Department of Agriculture as Regional Director and Executive Director of the Agricultural Training Institute.

Dr. Sayoc have a Doctor of Veterinary Medicine degree from the University of the Philippines.

2.6 Dr. Rodel Maghirang

Dr. Rodel Maghirang is a vegetable breeder at the Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baňos and has been doing vegetable breeding since 1979. He has authored numerous scientific papers, information bulletin, and technical notes on Crop Improvement, Vegetable Production and Organic Agriculture. He is a trainor on organic agriculture. He is a consultant in various government and private sector programs on Vegetables and Organic Agriculture.

He is currently the Director of the Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baňos. He is also holding the position of Scientist I in the Institute of Plant Breeding.

3 – Directory of Participants

No.	Name	Organization	Email	Country
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308	Ms. Elvira Morales	DA-BPI	seedcouncil@yahoo.com	Philippines
309	Myer Mula	DA-SAAD	myermula@gmail.com	Philippines
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314	Noel Mabaquiao Montano	University of Antique - Hamtic Campus	hamtic@antiquespride.edu.ph	Philippines
315	Nomer Esmero	Central Luzon State University	ncesmero@gmail.com	Philippines
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369	Ruth C. Dionsay			Philippines
370	Rya Micca Dalina	Biology Society, Laguna State Polytechnic University-SCC	ryamiccad@gmail.com	Philippines
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400	Winnie Ralar	PSAU	wynsralar1997@gmail.com	Philippines
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406	Eisen Bernardo	CCAFS Southeast Asia	e.bernardo@irri.org	Vietnam

407	Stephanie Angomwile	Afriseed	Sangomwile@gmail.com	Zambia

4 – Presentation of speakers

Please see the link for the copies of the presentations.

https://cgiar-my.sharepoint.com/:f:/g/personal/cip-manila_cgiar_org/End06mR2X2xIgahCy1DtoU4BX-YekH-cXJQb0tR4RkWVsw?e=C0eFmU

5- Synthesis

Synthesis by Dr. Rodel Maghirang
https://cgiar-my.sharepoint.com/:f:/g/personal/cip-manila_cgiar_org/End06mR2X2xIgahCy1DtoU4BX-YekH-cXJQb0tR4RkWVsw?e=C0eFmU

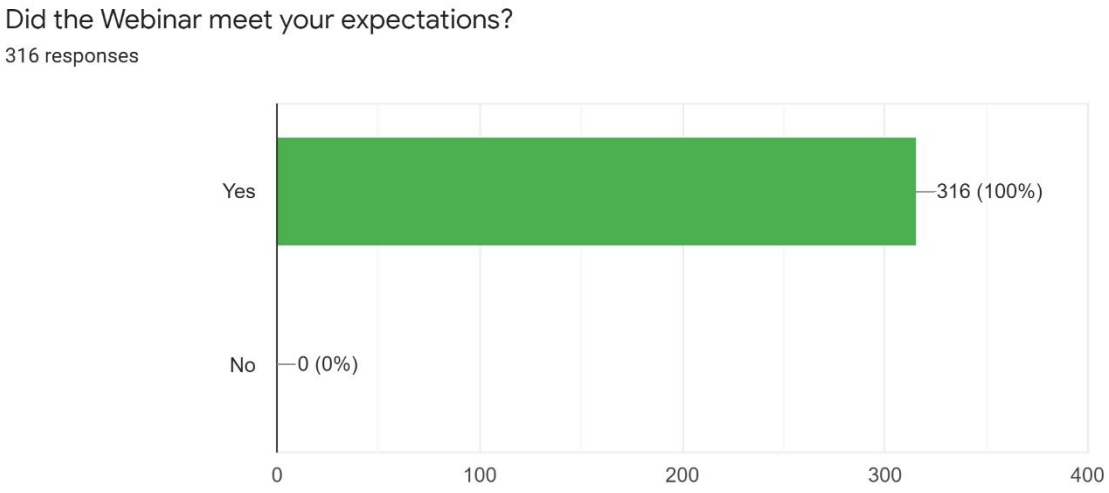
6 – Results of the evaluation

Seed System Webinar 2 on Regional Cooperation for Building a Resilient Seed System in the Philippines

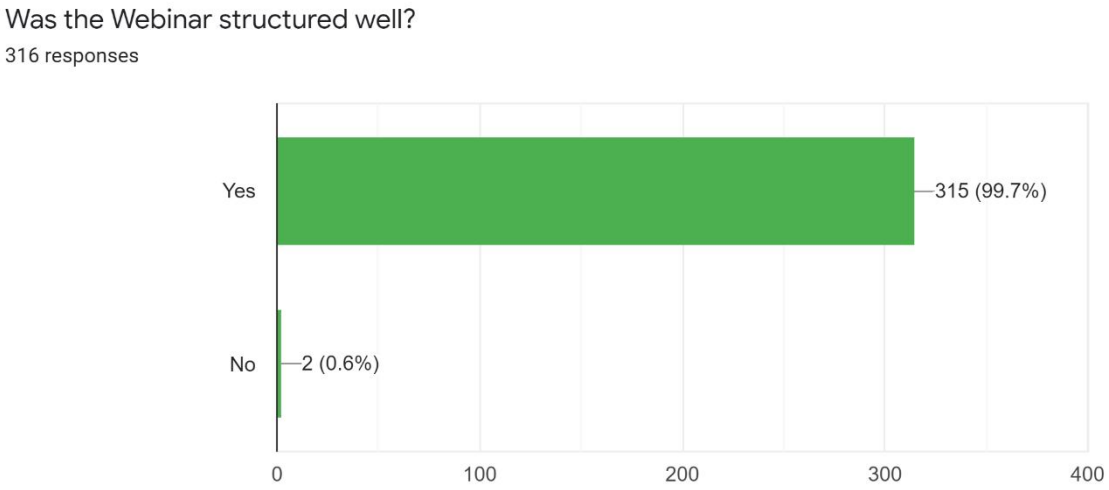
Evaluation

Total number of responses: 318

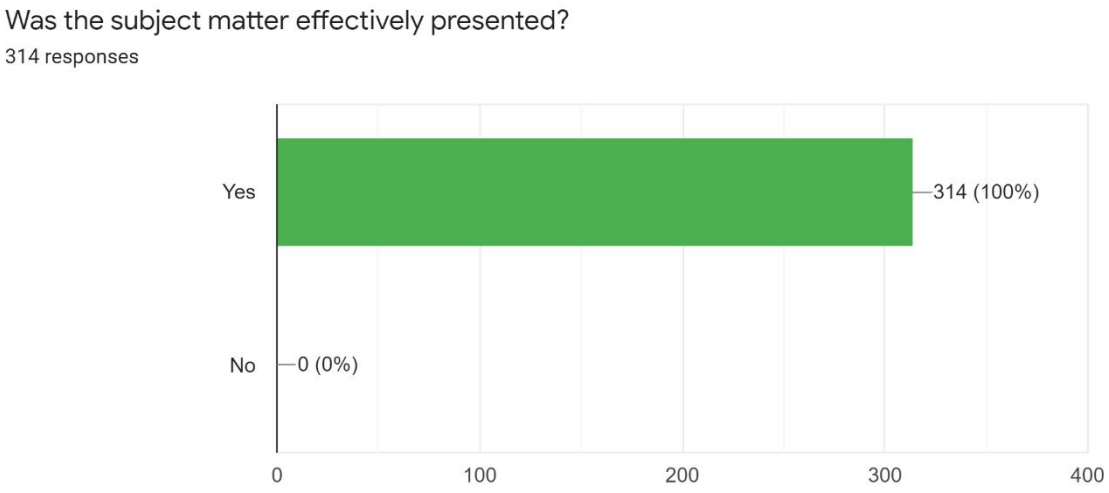
Did the Webinar meet your expectations? **316 responses.**



Was the Webinar structured well? **316 responses.**



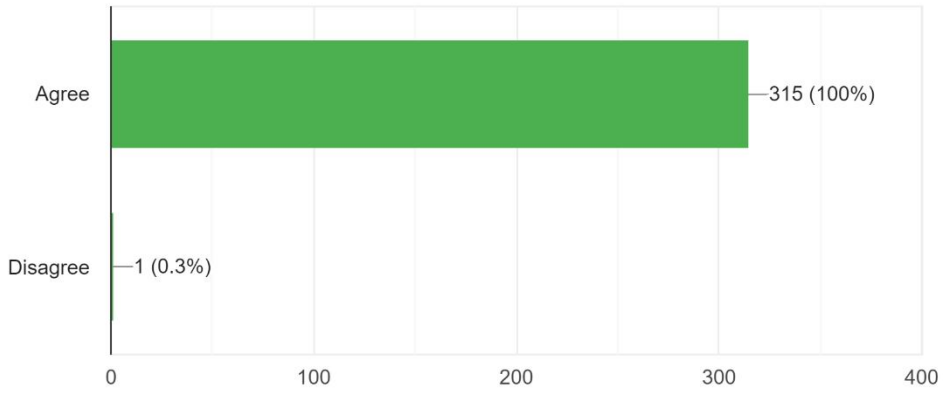
Was the subject matter effectively presented?314 responses.



As a result of this Webinar, I gained new knowledge applicable to my work.315 responses.

As a result of this Webinar, I gained new knowledge applicable to my work.

315 responses



What did you like MOST about the Webinar? **283 responses.**

Synthesis
Everything
Most of the topic
Seed system
None
YES
Perspective of the Private Sector on Seeds without Borders
The discussion and the ideas I gain from this session.
The fact that various countries are in acting efforts to improve agricultural condition.
Seed system Integration
All topics were very informative.
the panel discussion that is very informative
Seed resiliency
The private sector perspective
The topic is very relevant to the current needs of the industry.
Very informative
Diverse presenter from different countries point of view and private and public sector
The presentation of the different countries' status in terms of policies, varietal development, and their different concerns.
Topic how to prevent seed genetic erosion.
Competitive Speakers
A fruitful webinar! Timely not only to Multi Grade teachers, but to all who engage in educating our learners, including the parents.
The insights of the panelists
Diversified information on seed cooperation
The lecture of Dr. Mohanty, very informative.
I like all the topics as it is timely and relevant to our current situation as climate change directly affects our crop industry.
topic about seed production
almost all topics were interested.
the synthesis explained it everything well!
Q and A
I like most the topic on Seed Production, Distribution, Promotion and Marketing
Benefits of Regional Cooperation, exchanging variety of resources.
i learn a lot from the webinar.
Diverse presenters
Relevance of the topic
The insights and new knowledge and the discussion forum
Crop application

I liked most of the webinar is more about the years will take effect the varieties of seed will accept to them and also the law of National Seeds in our country.
Seed production and industry and its roles
Perspective of the Private Sector on Seeds Without Borders
It was highly informative.
Everything as very informative particularly the information about providing viable seeds to farmers. "A good seed can change the lives of millions."
Insights from different countries
I like how the panelists shared their ideas in addressing a concern/question. It is very helpful because more aspects or sides of the topic being discussed are acknowledged, this helps the panelists and participants see the topic in a wider lens.
Perspectives from government, private sector and 3 countries.
The Panel discussion and presentation by speakers. Having a regional cooperation for building a resilient seed system in the Philippines is a strategic move to expand the genetic resources of various agricultural crops in the country.
Reduction on the number of years in adopting a new variety of seeds.
Informative; Dr. Sampriti provides synthesis every after the presentation/talk.
It gives me more knowledge which could be very useful in my line of work/duties.
All topics were beneficials.
The most I like in this webinar is about the seeds and those varieties that would help our farmer to achieve a high quality of seeds that will help them to uplift their farming system.
Seed/varieties without international borders
All part especially the presentation from the Philippines.
The insights and sharing of experiences of different countries.
Knowledgeable Speakers
Most of the presenters/panelists provided a slideshow during their presentation.
About webinar
All topic is informative and very helpful especially to all farmers.
Crop importance
Detailed explanation
Space and ground data for brew 4 for the betterment of human condition
Opportunities in the regional cooperation on seed system
Updates from my country
Importance of good system and its effect on the sector of agriculture.
I like how the panelist share and discuss the status of the seed industry in their country.
Detailed topics on production and postharvest aspects of different crops
The more knowledge how to plant the seed.
All information provided are valuable and relevant.
Different policies on seed system
Clarification on the daily of the regional cooperation
Presentation on the current situation in Asia in Climate Resilient Food Systems and the Perspective of the Private Sector on Seeds without Borders

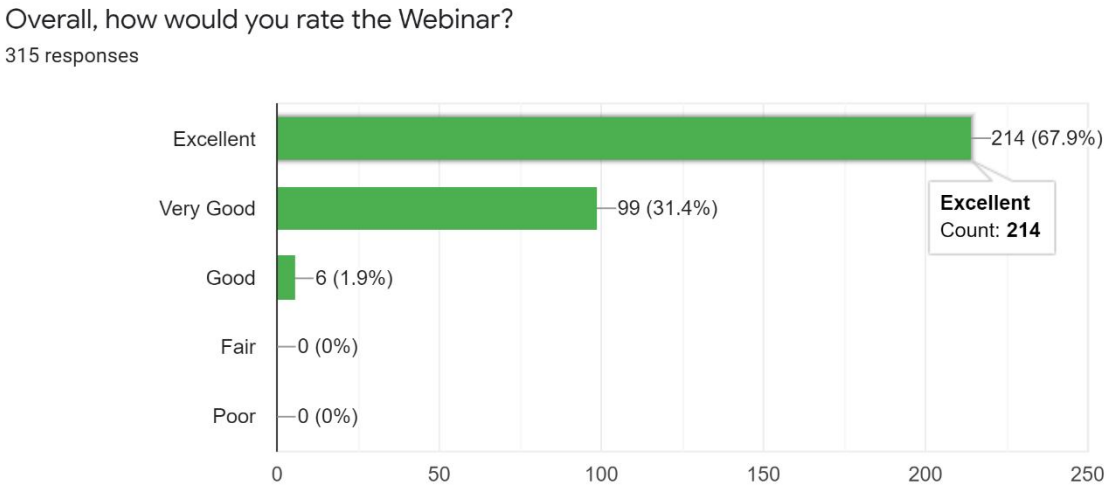
Status/Experiences on regional cooperation among Asian countries and the sharing of experiences on this regional collaboration
The strategy on how the government support the agri sector.
I really like that they bring a lot of speakers to share their knowledge and also it brings a lot of information for us. I hope you'll host again another webinar like this! Thank you!
The unity of every region, every country in environmental awareness and preservation about seed system
Functions of the Department of Agriculture
The different strategies and insight parted by the panelists.
The webinar has excellent panelists.
Regional cooperation is encouraged. This is important to maximize the use of time and resources of governments. Likewise, reduce the time needed for farmers to benefit from these new varieties.
Diversity of information and ideas.
I like the timelines of the webinar and the resource speakers' expertise.
Speakers Wisdom
The discussions about the plans and actions to be taken by the participating countries in building a resilient seed system.
About research and development and benefits of agreement
Effect of climate change in Seed System
How these countries work hard to meet the recent need for seed production.
Various information about the situation of the seed sector/system in different countries of Asia.
The presentation of Dr. Sayoc though all presentations were very good and informative.
Prospect of Private Sector on Seeds without Boarder and Seed Industry Act
The Regional Partnership for Food Security

What did you like LEAST about the Webinar?254 responses?

None/nothing
N/A
Non-specifically.
Formal Linkages of the private sector
None. All parts of the webinar are informative.
Hard data/information for each crops/country was lacking on improvement of nutritional security.
I can't say because I learned a lot today. Thank you for sharing.
Some presenters didn't show their presentation slides during their time.
The establishing of seed technology park
So far none
None. The webinar is almost perfect.
Topics on potato because we do not have potato in our area.
None, because all the topic discussed in the webinar are very informative and important to know specially farmers.
The topic is awesome.

Policy and Decision makers should also be invited to have their insights.
Some resource persons do not have powerpoint presentation :(
I don't have the least about the webinar.
More time should have been allotted to all panelist. The speaking time of the speakers are quite short.
None. I liked everything that was discussed.
Not enough time to answer the questions.
To better understand the discussion, I suggest the panelist will have a PowerPoint.
I don't like those panelists who simply talked without presenting a slideshow.
The laws
All topics are interesting. There is no least topic for me.
Slow internet connection.
Poor audio quality of some speakers
Lack on polls, short quizzes or surveys from participants
Quality Seed distribution for breeding purposes for the benefits of farmer affected by biotic and abiotic stress.
Maybe due to the language differences, there’s a little “misunderstanding” of the words being spoken.
Nothing! Everything is well placed.
All the topics are useful.
Not enough time
None since all presentations are valuable especially to me being an Extension Worker.
Internet connectivity is low.
Hoping the policies will happen.
Did not include more information on how the Regional Cooperation will be implemented.
The audio of the moderator and some speakers.
I cannot see the presentation of Prof.Dr. Lutful Hassan
Off tangent answers to queries
Lengthy but it was worth it.
Great insights about the topic.
The laws and improvement of seed sector to the impact to the farmers
None, all are very informative, and all topics are good.
My internet connection and can't ask question directly.
Engaging and insightful discussions.
Are there linkages in seed supply system?
I was not able to have my photo opp with the speakers.
There are some parts that are hardly to be understood with the presentation of Dr. Hassan and Dr. Buu. Nonetheless, everything is interesting.
This should be a whole day event. Hoping for more webinars like this!
I like the host for speaking for webinar.
Very informative especially the innovation of the farmers
It should have been highly appreciated if the presentations from Bangladesh and Vietnam have visual aids to support the presentations made.

Overall, how would you rate the Webinar? 315 responses?



Suggest a future topic or a way we could improve our webinars. 199 responses.

Aquaculture
Anything that related to agriculture.
Silvicultural practices
Potato cultivation
Farmers Training.
The impact of genetically modified crops on the sustainability of agriculture.
Climate resilient agriculture.
Laws
Gender in the value chain of specific crops
Status of climate change in ASEAN and the readiness of their agriculture sector.
Enhancing the skills of local Farmers
about planting and making a garden
Water Supply and Soil Nutrient Management
Potato seed system development
webinars about crops improvement
Collaboration among institutions of these countries
Anything relevant to climate change and agriculture/fisheries
Seed Certification
Climate resiliency
I haven't attended your first webinar so I am not sure if you have already tackled what I am going to suggest, but I would like to suggest Agricultural Biotechnology as a future topic if it hasn't been discussed yet. Thank you.

National Seed Technology Park and its role in developing a climate-resilient seed system in the Philippines.
More agriculture related trainings/webinar
Another topic can be crop specific like Seed Potatoes.
More informative webinar series
Improvement of availability of seeds in the market.
Latest manufacturing
Initiatives of Asian countries in potato varietal development
Focus on regional cooperation for a climate-resilient seed system. (with a goal of crafting policies, rules/regulations, guidelines etc.) This is immediate/urgent as the impact of climate change is so fast and glaring and farmers are most affected.
seed technology
Crop management despite the changing seasons.
Webinar on Urban Gardening and hydroponics, Precision Agriculture
Asexual propagation of high value crops
Access to the planting materials
Policies on climate change and how it has change/improve/affect farmers and fisherfolks.
Testimonies of technology users or those involve in this kind of program!
About seed exchange
postharvest handling technology of tropical fruits
How to secure food production in the future while farm lots are being converted into housing?
Promising varieties of different crops from the different member countries
Please tackle more topics on Plant Breeding
engaging small farmers in agri-business & how to scale them up.
A discussion about community-based seed systems in the country.
advance farming systems in potato using profitable varieties.
Maybe more or local resources specifications on local practices
Strengthening linkages and partnerships among regional countries towards sustainable agriculture.
How seed industry preparing in the next 30 years from now.
Hydroponic farming
Potato seed system in Asia
Improvement of tropical crops through computational genomics and bioinformatics for attaining food and nutrition security.
Inter-country Seed Supply Sustainability
Latest Kinds of Rice Varieties Latest policies governing rice production and regulations Though not covered, but just expressed: It would be better to have rice variety trials in different Philippine Region because they have different climate conditions.
Diffusion/ dissemination of the seeds?
Preservation of Genetic Diversity of Agricultural Crops
Seed Production of Indigenous Plants
Regional Regulations among ASEAN countries Regarding Seed Network
Look into the recommendations given by Dr. Sayoc.

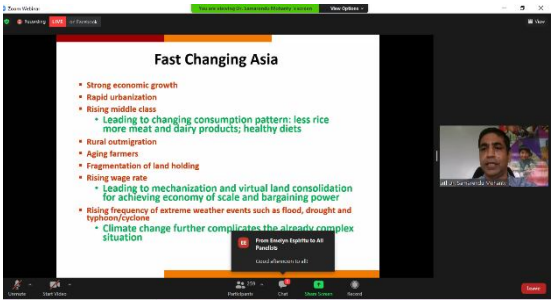
Seed technology
Agroforestry systems in the context of water conservation in face of changing climate.
vegetables production in India
5-10 years plan of each country in terms of seed management
Latest hog raising techniques to control epidemic in pigs & help the grass roots farmers to have an alternative income in animal industry.
Financial Inclusion in Agriculture
Forest seeds
Important factors to improve the germination of seeds.
Climate Change
Agricultural Systems and Concepts in the Midst of Pandemic.
How to get more important to the plant.
Aero phonic

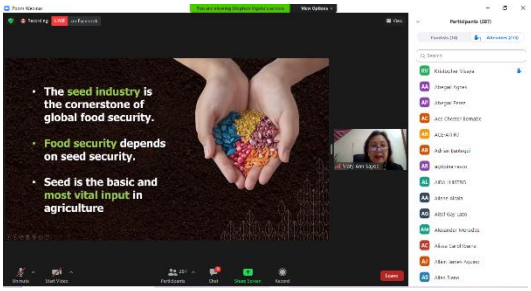
Clearer audio
The provision of the recorded copy of the webinar is highly appreciated.
Topics should be presented with ppt.
more time
Increase discussions with attendees, not only in the chat box.
Extend the number of hours for the webinar.
Organize a webinar with NARS head of different crops would be helpful to know their interest and willingness to join in the treaty.
Please use a headset with mic next time to improve the audio quality. Overall, it was a good and engaging webinar. Thank you! Keep it up!

Perfect. Please continue your good work.
Excellent, keep it up🙏
Keep continue.
Well done.

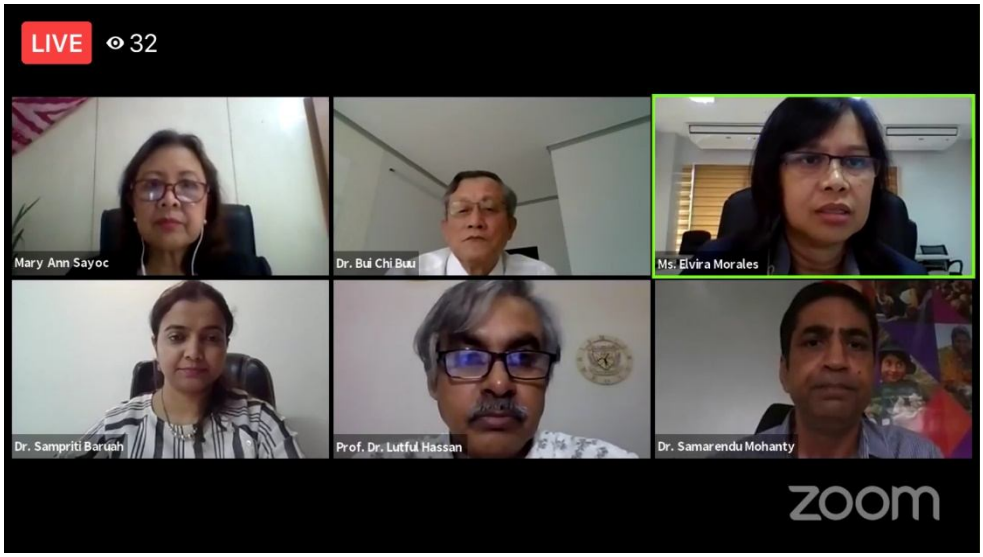
7 – Screenshot of the webinar

Presentations of the panelists, namely: Dr. Samarendu Mohanty , Dr. Lutful Hasaan, Dr, Bui Chi Buu, Ms. Elvira Morales, Dr. Mary Ann P. Sayoc; and the synthesis of Dr. Rodel Maghirang.

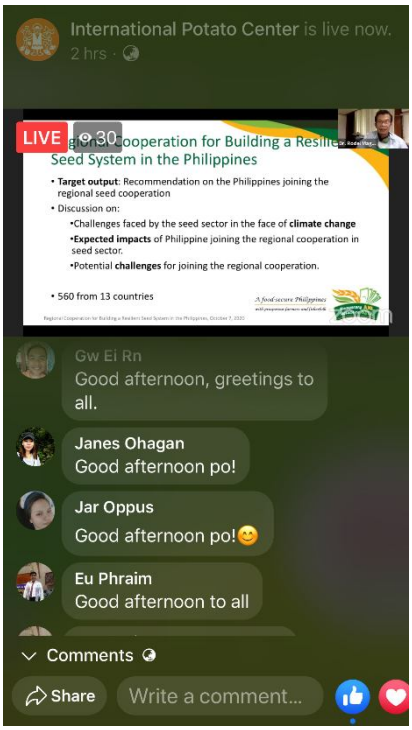




The panelists and moderator, Dr. Sampriti Baruah, during the question and answer portion of the webinar.




International Potato Center is live now.
1 hr
LIVE
26
zoom
THANK YOU SO MUCH!
Sheryl Sarnillo Bayang
Good afternoon po! watching from the University of Southeastern Philippines.
Irene Alcantara Papa
Good afternoon everyone.
Carlos Basilio is watching with you.
Comments
Share
Write a comment...


International Potato Center is live now.
2 hrs
LIVE
30
Seed System in the Philippines
• Target output: Recommendation on the Philippines joining the regional seed cooperation
• Discussion on:
•Challenges faced by the seed sector in the face of climate change
•Expected impacts of Philippine joining the regional cooperation in seed sector.
•Potential challenges for joining the regional cooperation.
• 560 from 13 countries
Gw Ei Rn
Good afternoon, greetings to all.
Janes Ohagan
Good afternoon po!
Jar Oppus
Good afternoon po!
Eu Phraim
Good afternoon to all
Comments
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8 – Press release on the webinar

1. **Challenges and impacts of a climate-resilient seed system in PH to be discussed in webinar.**
   Published: Wednesday, 30 September 2020

Quality seeds are important in crop establishment, yield increase, and low incidence of pests and diseases. However, with the challenge of climate change, seeds need to be climate-resilient as well. The development of these seeds can be fast-tracked through collaboration of different countries in the Southeast and South Asian region.

This type of collaboration will be discussed during the webinar, "Regional Cooperation for Building a Resilient Seed System in the Philippines" that will be organized by the International Potato Center (CIP) and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS); and co-organized by the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development of the Department of Science and Technology (DOST-PCAARRD). It will be held on October 7, 2020 at 1:30 p.m. to 4:00 p.m. via Zoom and Facebook Live at https://www.facebook.com/cipotato.

The Philippines, when it decides to be part of the regional cooperation, will benefit from this setup through acquiring field trial data of public sector varieties and information on varietal evaluation data from other Southeast and South Asian countries. Moreover, Filipino farmers can benefit from faster release of new climate-smart varieties.

This type of cooperation has already been done in other countries such as India and Bangladesh in 2013. It was extended to include Nepal in 2014. The three countries shared data from their respective field trials generated during the evaluation of varieties released in respective countries. The agreement eventually included Cambodia and Sri Lanka and also included other cereals, pulses, oilseeds, vegetables, sugarcane, and fiber crops. Myanmar and Bhutan eventually joined the cooperation.

India, which participated in the regional cooperation, released a bio-fortified potato variety, Yusi Maap within months, compared with Bhutan, which only released the variety after 15 years.

Topics of the webinar will specifically focus on the challenges faced by the seed sector brought upon by climate change; expected impacts of the Philippines when it joins the regional cooperation in the seed sector; and the potential challenges for joining the regional cooperation.

Panelists from Bangladesh, Vietnam, and the Philippines will share their experiences and insights on the joining the regional cooperation in the seed sector. The webinar will be moderated and hosted by Dr. Sampriti Baruah, CIP Project Cooordinator for Asia.

Interested participants can register at http://bit.ly/Oct7reg.

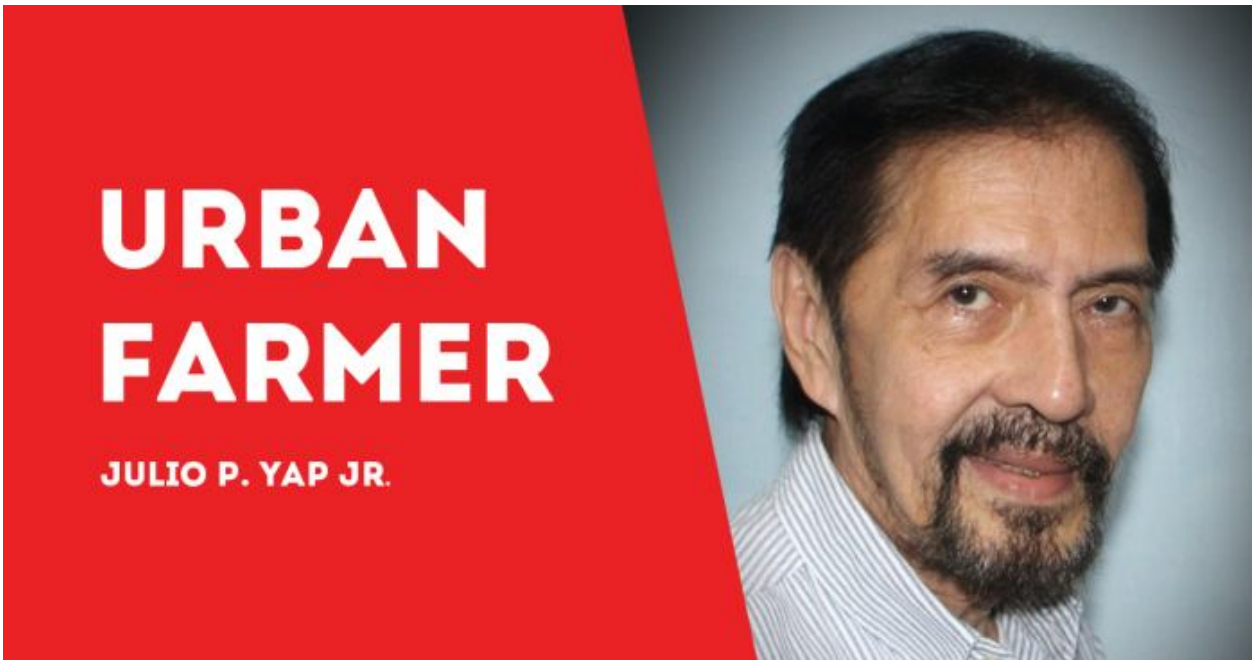
For more information about the webinar, please visit: http://

.ly/Oct7webinar.

2. RESILIENT SEED SYSTEM FOR PH

https://www.panaynews.net/resilient-seed-system-for-ph/

Julio Yap Jr.
Monday, October 5, 2020



FOR agricultural countries, it is vital for farmers to use quality seeds in order to attain abundant and sustainable production.

But with the challenges posed by climate change, seeds need to be climate-resilient as well.

The development and availability of these quality seeds can be fast-tracked through the collaboration of different countries in the Southeast and South Asian regions.

This collaboration will be discussed during the forthcoming webinar dubbed “Regional Cooperation for Building a Resilient Seed System in the Philippines” that will be organized by the International Potato Center (CIP) and the CGIAR Research Program on Climate Change,

Agriculture and Food Security, and co-organized by the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development of the Department of Science and Technology (DOST-PCAARRD).

The webinar will be held on Oct. 7 from 1:30 p.m. to 4 p.m. via Zoom and Facebook Live at https://www.facebook.com/cipotato.

The Philippines, when it decides to become part of the regional cooperation, will benefit from this setup through acquiring field trial data of public sector varieties and information on varietal evaluation data from other Southeast and South Asian countries.

The farmers will then benefit from the faster release of new climate-smart plant varieties.

This cooperation has already been conducted in other countries, which include India and Bangladesh in 2013, and was later extended to include Nepal in 2014.

The three countries shared data from their respective field trials that were generated during the evaluation of different varieties released in their respective countries.

The agreement eventually included Cambodia and Sri Lanka, which likewise included other cereals, pulses, oilseeds, vegetables, sugarcane, and fiber crops.

The countries of Myanmar and Bhutan eventually joined the cooperation.

India, which participated in the regional cooperation, released a bio-fortified potato variety, Yusi Maap within months, compared with Bhutan, which only released the variety after 15 years.

Topics of the webinar will specifically focus on the challenges faced by the seed sector brought about by climate change; expected impacts of the Philippines when it joins the regional cooperation in the seed sector; and the potential challenges for joining the regional cooperation.

Panelists coming from Bangladesh, Vietnam, and the Philippines are expected to share their experiences and insights on joining the regional cooperation in the seed sector.

The webinar will be moderated and hosted by Dr. Sampriti Baruah, the CIP project coordinator for Asia.

According to the DOST-PCAARRD, interested participants can register at http://bit.ly/Oct7reg.

Meanwhile, DOST-PCAARRD Executive Director Dr. Reynaldo V. Ebora was recently appointed as a member of the Policy Advisory Council (PAC) of the Australian Centre for International Agricultural Research (ACIAR).

ACIAR PAC plays a key role in the planning and implementation of ACIAR's international agricultural research portfolio.

It provides advice to Australia's Foreign Minister on problems in the agriculture sector of developing countries and on the appropriate policies and programs to address the problems.

PCAARRD and ACIAR have been strong partners for more than 36 years in terms of agricultural R&D and in promoting R&D results to advance agricultural competitiveness./**PN**

3. Climate-resilient seed system pushed.

https://manilastandard.net/mobile/article/337569

posted October 23, 2020 at 07:05 pm

by **Butch Gunio**

Los Baños, Laguna—Filipino experts are collaborating with their Asian counterparts to come out with a climate-resilient seed system in the country.

Filipino research scientists are collaborating with other South Asian and Southeast Region experts to produce not just quality seeds but climate-resilient as well, according to a report relayed to newsmen by Rose Anne M. Aya of PCAARRD Media Services.

Quality seeds are important in crop establishment, yield increase, and low incidence of pests and diseases.

As a collaborative effort to develop climate-resilient seeds, Filipino and other Asian experts recently held a webinar dubbed, "Regional Cooperation for Building a Resilient Seed System in the Philippines."

The virtual seminar was organized by the International Potato Center (CIP) and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

The DOST Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) was co-organizer.

Challenges faced by the seed sector brought upon by climate change; expected impacts of the Philippines when it joins the regional cooperation in the seed sector; and the potential challenges for joining the regional cooperation were discussed in the webinar.

Panelists from Bangladesh, Vietnam, and the Philippines shared their experiences and insights on joining the regional cooperation in the seed sector.

The webinar was hosted and moderated by Dr. Sampriti Baruah, CIP Project Coordinator for Asia.

With the collaboration, the Philippines will benefit through acquiring field trial data of public sector varieties and information on varietal evaluation data from other Southeast and South Asian countries.

Filipino farmers can as well benefit from faster release of new climate-smart varieties, Aya reported.

Cooperation has already been done in other countries such as India and Bangladesh in 2013 and was extended to include Nepal in 2014.

The three countries shared data from their respective field trials generated during the evaluation of varieties released in the respective countries.

The agreement eventually included Cambodia and Sri Lanka and included other cereals, pulses, oilseeds, vegetables, sugarcane, and fiber crops. Myanmar and Bhutan eventually joined.

Topics: **Rose Anne M. Aya , webinar , climate-resilient seeds , International Potato Center**

WEBINAR 2: LIST OF SOCIAL MEDIA POSTS OF PCAARRD

https://www.facebook.com/PCAARRD/posts/3224259084353407?comment_id=3239473852831930

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